

REMARKS

The Office Action dated June 12, 2005 has been received and carefully considered. In this response, claims 1,3, 5, 7, 9, 16, 28, 32 and 33 have been amended and claims 2, 20-27, 31 and 34-41 have been canceled without prejudice or disclaimer. Support for the amendments to the claims may be found in the specification and figures as originally filed. Entry thereof and reconsideration of the outstanding rejections therefore is respectfully requested in view of the following remarks.

Allowability of Claims 9 and 33

The Applicants note with appreciation the indication at section 26 of the Office Action that claims 9 and 33 would be allowable if rewritten in independent form. In an effort to advance the present application, claims 9 and 33 have been rewritten in independent form including all limitations of base claim and any intervening claims.

Restriction of Pending Claims

The Office has restricted claims 1-41 of this application into Group I (claims 1-19 and 28-33), and Group II (claims 20-27 and 34-41) and the Office has constructively elected Group I. In an effort to reduce costs, claims 20-27 and 34-41 have been canceled without prejudice.

Anticipation Rejection of Claims 1, 5, 6, 10-19, 28, 30, and 32

At section 2 of the Office Action, claims 1, 5, 6, 10-19, 28, 30 and 32 were rejected under 35 U.S.C. Section 102(e) as being anticipated by Cairns (U.S. Patent Application Publication No. 2002/0027541).¹

Independent claim 1 has been amended to further recite the features recited by dependent claim 2 (now canceled). Similarly, independent claim 28 has been amended to further recite the additional features recited by dependent claim 31 (now canceled). As acknowledged by the Office Action at section 16, Cairns does not teach the features recited by claims 2 and 31. Accordingly, Cairns fails to disclose each and every feature presently recited by claims 1 and 28.

¹ Although claims 1-17 and 28-33 are listed as being anticipated by Cairns at section 2 of the Office Action, the Applicants note that claims 2-4, 7-9, 29, 31 and 33 are not addressed in any manner with respect to the anticipation rejection in view of Cairns. Accordingly, it is assumed that the inclusion of claims 2-4, 7-9, 29, 31 and 33 in the anticipation rejection in view of Cairns was a typographical error on the part of the Office.

Cairns also fails to suggest each and every feature of claims 1 and 28 as presently recited. Cairns also fails to disclose or suggest each and every feature of claims 5, 6, 10-19, 30 and 32 at least by virtue of their dependency from one of claims 1 or 28. Moreover, these dependent claims recite additional features neither disclosed nor suggested by the cited references. Accordingly, it is respectfully submitted that the anticipation rejection of claims 1, 5, 6, 10-19, 28, 30 and 32 is improper at this time. Reconsideration and withdrawal of this rejection therefore is respectfully requested.

Anticipation Rejection of Claims 1 and 28

At section 12 of the Office Action, claims 1 and 28 were rejected under 35 U.S.C. Section 102(e) as being anticipated by Honda (U.S. Patent No. 6,493,466).²

As noted above, claim 1 has been amended to recite the additional features previously recited by claim 2 and claim 28 has been amended to recite the additional features recited by claim 31. Honda fails to disclose or suggests these additional features. Moreover, the Office Action does not assert that Honda discloses nor suggests these additional features. Accordingly, it is respectfully submitted that the anticipation rejection of claims 1 and 28 in view of Honda is improper at this time. Reconsideration and withdrawal of this rejection therefore is respectfully requested.

Obviousness Rejection of Claims 2-4 and 31

At section 15 of the Office Action, claims 2-4 and 31 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Cairns in view of Mirov (U.S. Patent No. 6,691,215). This rejection is respectfully traversed.

As noted above, claim 1 has been amended to recite the additional features previously recited by claim 2 and claim 28 has been amended to recite the additional features previously recited by claim 31. Claim 1 therefore now has the same scope as claim 2 and claim 28 now has the same scope as claim 31.

² Although the Office Action lists claims 1-17 and 28-33 as being anticipated by Honda, the Office Action provides no basis for anticipation rejection of claims 2-17 and 29-33 with respect to the anticipation rejection in view of Honda. Accordingly, it is assumed that the inclusion of claims 2-17 and 29-33 in the anticipated rejection in view of Honda was a typographical error on the part of the Office.

Claim 1 presently recites the features of:

identifying a first display content to be displayed at a first time;
identifying a second display content to be displayed at a second time, wherein the second time is after the first time;
providing display data to a display port at a first frame rate if the first display content is different from the second display content;
providing display data to the display port at a second frame rate if the first display content is substantially the same as the second display content, wherein the second frame rate is less than the first frame rate;
enabling a first clock rate if the first display content is different from the second display content; and
enabling a second clock rate if the first display content is substantially the same as the second display content, wherein the second clock rate is less than the first clock rate.

Claim 28 presently recites the features of a system comprising:

a content analyzer to compare a first display content to be displayed at a first time with a second display content to be displayed at a second time, wherein the second time is after the first time;
a display module to alter a frame rate for providing display data to a display port, wherein said frame rate is based on the comparison performed by said content analyzer;
a power module to:
enable a first clock rate if said content analyzer determines the first display content is different from the second display content; and
enable a second clock rate if said content analyzer determines the first display content is substantially the same as the second display content, wherein said second clock rate is less than said first clock rate.

The Office Action acknowledges that Cairns fails to teach the feature enabling the first clock rate if the first display content is different from the second display content and enabling a second content rate if the first display content is substantially the same as the second display content as presently provided by claims 1 and 28. *Office Action*, page 9. The Office Action

therefore relies on Mirov as allegedly disclosing these features. Specifically, the Office Action asserts that

Mirov discloses an apparatus and method for enabling a first clock rate [enabling PLL] and second clock rate [disabling PLL] using multiplexer [1010, fig. 1] based on the select signal [PLL BYPASS] wherein second clock rate [PLL disabled] is less than the first clock rate [col. 4, lines 43-67, col. 6, lines 49-67, col. 7, lines 1-20, col. 8, lines 65-67, col. 9, line s1-14, col. 13, lines 14-52, col. 15, lines 64-67, col. 16, lines 1-67, col. 17, lines 1-5, fig. 10].

Office Action, p. 9. Based on this alleged teaching of Mirov, the Office Action concludes that

It would have been obvious to one of ordinary skill in [art], having the teachings of Cairns and Mirov before him at the time of invention was made, to modify the frame rate control based on comparison with control signal output as disclosed by Cairns to include enabling a first clock rate [enabling PLL] and enabling second clock rate [disabling PLL] based on selection signal [PLL BYPASS] as taught by Mirov, *in order to obtain a system that track and record the information on an hourly, daily, weekly, monthly, etc. basis and recorded information is periodically analyzed to identify activity trends and may then be used to modify the rate at which system is allowed to transition between the normal, reduced power, and idle modes* [col. 25, lines 14-28].

Id. (emphasis added). Contrary to the assertions of the Office Action, the proposed combination of Cairns and Mirov fails to disclose or suggest the particular combinations of features recited by claims 1 and 28 and their dependent claims. Moreover, there is no motivation to combine the teachings of Cairns and Mirov as proposed by the Office Action.

The proposed combination of Cairns and Mirov fails to disclose or suggest the features of enabling first and second clock rates as recited by claims 1 and 28

As noted above, claim 1 presently recites the features of enabling a first clock rate if the first display content is different from the second display content and enabling a second clock rate if the first display content is substantially same as the second display content, where the second clock rate is less than the first clock rate. Similarly, claim 28 presently recites the features of a power module to enable a first clock rate if a content analyzer determines a first display content is different from a second display content and enable a second clock rate if said content analyzer determines the first display content is substantially the same as the second display content, wherein said second clock rate is less than said first clock rate. Thus, claims 1 and 28 provide that the first clock rate and the second clock rate are enabled in relation to whether the first

display content is substantially the same as or different from the second display content. In contrast, Cairns teaches

a method of reducing power required to display a sequence of images on a liquid crystal display, in which images are analyzed and if consecutive Images [sic] are substantially the same, *then the liquid crystal display is not updated with the subsequent image.*

Cairns, Abstract (emphasis added). Thus, Cairns teaches that the display is not updated with a subsequent image when it is the same as the previous image. Cairns, however, is silent with respect to enabling different clock rates in any manner, much less enabling different clock rates depending on whether a second display content is substantially the same or different from a first display content as provided by claims 1 and 28. Thus, Cairns does not disclose or suggest the features of enabling a first clock rate if the first display content is different from the second display content and enabling a second clock rate if the first display content is substantially same as the second display content, where the second clock rate is less than the first clock rate, as recited by claim 1 and as similarly provided by claim 28.

Turning to Mirov, although the use of different clock frequencies is disclosed, Mirov is silent with respect to enabling different clock rates based on whether display contents are different or substantially the same as provided by claims 1 and 28. In fact, Mirov fails to disclose comparing display contents in any manner. Accordingly, the combination of teachings of Cairns and Mirov would results in a system whereby different clock rates are used, but not where a first clock rate is enabled when a first display content is different from a second display content or a second clock rate is enabled when the first display content is substantially same as the second display content as recited by claims 1 and 28. Accordingly, it is respectfully submitted that the proposed combination of Cairns and Mirov fail to disclose the particular combinations of features of claims 1 and 28.

There is no motivation to combine Cairns and Mirov as proposed

In addition to failing to disclose or suggest each and every feature of claim 1, neither Mirov nor Cairns provides any motivation for their combination as proposed by the Office Action. As noted above, the Office Action asserts that the combination of Cairns and Mirov would be motivated "in an order to obtain a system that track [sic] and record [sic] the

information on an hourly, daily, weekly, monthly, etc. basis and recording information is periodically analyzed to identify activity trends and may then be used to modify the rate in which the system is allowed to transition between normal, reduce power and idle modes." *See Office Action*, p. 9. However, it is respectfully submitted that the ability to track and record information on hourly, daily, weekly, monthly basis and to analyze the activity trend has no utility in the context of the system of Cairns. As disclosed by the Abstract of Cairns, Cairns discloses a driving arrangement for an active liquid crystal display whereby "images are analyzed and if consecutive images are substantially the same, then the liquid crystal display is not updated with the subsequent images." Cairns provides no indication that the tracking or analysis of activity levels to determine when to enter a high power or a low power mode would be advantageous in any manner. Mirov provides no indication that enabling different clock rates based on a difference between display contents would be advantageous. Thus, as Cairns provides no suggestion that different clock rates would be advantageous and the display of image frames and where Mirov provides no suggestion that its clock frequency change technique would be useful in response to changes in display content at a display device, it is respectfully submitted that one of ordinary skill in the art would find no motivation to combine the teachings of Cairns and Mirov as proposed by the Office Action to arrive at the particular combinations of features recited by claims 1 and 28.

The Office Action fails to establish that claims 1, 3, 4 and 28 are obvious in view of the proposed combination of Cairns and Mirov

As discussed above, the proposed combination of Cairns and Mirov fails to disclose or suggest each and every feature recited by claims 1 and 28, as well as each and every feature recited by claims 3 and 4 at least by virtue of their dependency from claim 1. Moreover, claims 3 and 4 recite additional features neither disclosed nor suggested by the cited references. Furthermore, there is no motivation to combine the teachings of Cairns and Mirov as proposed by the Office Action. Accordingly, the Office Action fails to establish a *prima facie* case of obviousness in its rejection of claims 1, 3, 4 and 28 in view of Cairns and Mirov. Reconsideration and withdrawal of the obviousness rejection of claims 1, 3, 4 and 28 therefore is respectfully requested.

Obviousness Rejection of Claim 6

At section 19 of the Office Action, claim 6 is rejected under 35 U.S.C. Section 103(a) as being unpatentable over Cairns in view of Nakagiri (U.S. Patent No. 6,396,465). This rejection is respectfully traversed.

As noted above, claim 1, from which claim 6 depends, has been amended to recite the additional features of claim 2. As also noted above, the Office Action acknowledges that Cairns fails to disclose or suggest the features recited by claim 2. The Office Action does not assert that Nakagiri discloses or suggests these features, nor does Nakagiri in fact disclose these features. Accordingly, the proposed combination of Cairns and Nakagiri fails to disclose the features of claim 6 at least by virtue of its dependency from claim 1. Moreover, claim 6 recites additional features neither disclosed nor suggested by Cairns or Nakagiri. Accordingly, it is respectfully submitted that the Office Action fails to establish that the proposed combination of Cairns and Nakagiri discloses or suggests the particular combination of features recited by claim 6. Reconsideration and withdrawal of the obviousness rejection of claim 6 therefore is respectfully requested.

Obviousness Rejection of Claims 7 and 8

At section 21 of the Office Action, claims 7 and 8 are rejected under 35 U.S.C. Section 103(a) as being unpatentable over Cairns in view of Koyama (U.S. Patent No. 6,396,465). This rejection is respectfully traversed.

As noted above, claim 1, from which claims 7 and 8 depend, has been amended to recite the additional features of claim 2. As also noted above, the Office Action acknowledges that Cairns fails to disclose or suggest the features recited by claim 2. The Office Action does not assert that Koyama discloses or suggests these features, nor does Koyama in fact disclose these features. Accordingly, the proposed combination of Cairns and Koyama fails to disclose the features of claims 7 and 8 at least by virtue of their dependency from claim 1. Moreover, claims 7 and 8 recite additional features neither disclosed nor suggested by Cairns or Koyama. Accordingly, it is respectfully submitted that the Office Action fails to establish that the proposed combination of Cairns and Koyama discloses or suggests the particular combination of

features recited by claims 7 and 8. Reconsideration and withdrawal of the obviousness rejection of claims 7 and 8 therefore is respectfully requested.

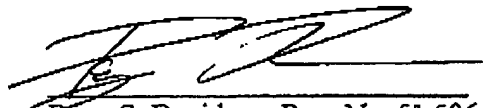
Conclusion

It is respectfully submitted that the present application is in condition for allowance, and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed telephone number in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

The Commissioner is hereby authorized to charge any fees that may be required, or credit any overpayment, to Deposit Account Number 50-0441.

Respectfully submitted,

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Date


Ryan S. Davidson, Reg. No. 51,596,
TOLER, LARSON & ABEL, L.L.P.
5000 Plaza On The Lake, Suite 265
Austin, Texas 78746
(512) 327-5515 (phone) (512) 327-5452 (fax)